

Work Programme 2012

COOPERATION

Theme 6

Environment (including climate change)

(European Commission C(2011)5068 of 19 July 2011)

~~for action. Reduction of risks of major economic losses through innovative non-structural mitigation measures and new public private partnerships on financial and insurance schemes. **Specific feature:** Partnership with relevant private and public key actors in risk management is highly recommended. Projects selected under this topic will be linked through a coordination mechanism that will be defined during the negotiation stage.~~

ENV.2012.6.4-2 Long-term monitoring experiment in geologically active regions of Europe prone to natural hazards: the Supersite concept¹⁶ - FP7-ENV-2012-two-stage

There is an urgent need to proceed with long-term monitoring and study of European reference sites located on land in high-risk seismic and volcanic areas and their associated landslide zones, to provide a better scientific understanding of the occurrence of those natural hazards. This approach fits in the international 'Supersite' initiative which aims to monitor and study, key regions or areas prone to hazards. The projects should provide focal points for a large geographical region, where all building blocks of a value chain from observations to end users can be linked together and applied to the phases of the risk management cycle relevant for this region. The choice of the geo-hazard 'Supersite(s)' needs to be carefully justified enabling precise geophysical measurements prior to, during and following geohazard events. Where supersites are adjacent to European Seas, coordination with existing marine systems necessary for comprehensive monitoring of the site could be included in the project. The monitoring of the 'Supersites' should be conducted through a fully integrated conceptual approach based on collaboration with existing monitoring networks and international initiatives, developing new instrumentation such as in-situ sensors, and aggregating space and ground-based observations (including from subsurface), and geophysical monitoring. The project(s) will develop and demonstrate the next generation of geo-hazards monitoring/observing systems, and contribute to establishing comprehensive natural hazards observatories through a cross-cutting approach. The development of novel monitoring systems and new instrumentation will be conducted in collaboration with the relevant industrial sectors and SME's. The projects should provide models of ground motion and deformation and necessary information at the 'Supersites' to mitigate and improve the preparedness of geological disasters. The selected project(s) should run a monitoring pilot phase as a European supersite demonstrator.

Funding scheme: Collaborative Project

The requested European Union contribution per project shall not exceed EUR 6 000 000

One or more proposals can be selected.

Expected impact: Increased European technical know-how for the monitoring of geological disasters and contribution to the development of the relevant European industrial sector (e.g. space applications, in situ sensors, adapted communication devices). Improved use of observations and related information to inform policies, decisions and actions associated with disaster prevention, preparedness and mitigation. Improved access to observations and related information to facilitate warning, response and recovery to disasters. Increased communication and coordination between national, regional and global communities in support of disaster risk reduction, including clarification of roles and responsibilities and improved resources management.

¹⁶ This topic will conduct long-term monitoring experiments in European areas prone to geohazards complementary to the actions conducted in the GMES initiative (Global Monitoring for Environmental and Security) e.g. GMES emergency management services.
<http://supersites.earthobservations.org/main.php>

Specific feature: The projects should collaborate at international level with other supersites to build a successful Global Earth Observation System of Systems (GEOSS) while making a significant European contribution to the GEO 2012-2015 Work Plan. Projects selected under this topic will be linked through a coordination mechanism that will be defined during the negotiation stage.

Additional eligibility criterion: Projects will only be selected for funding on the condition that the estimate EU contribution going to SMEs is 15% or more of the total estimated EU contribution for the project as a whole. This will be assessed at the end of the negotiation, before signature of the grant agreement. Proposals not fulfilling this criterion will not be funded.

~~**ENV.2012.6.4-3 Integrating environmental and health data to advance knowledge of the role of environment in human health and well-being in support of a European exposome initiative – FP7-ENV-2012 two-stage**~~

~~Large amounts of environmental (e.g. on exposure to chemicals or particulate matter) and health data (e.g. disease prevalence, cause specific mortality, reproductive health) have been collected in various EU regions by many national and EU funded projects and agencies. Environmental exposures are acknowledged to play a major role in human health and well-being. However, many environmental exposure health associations remain uncertain due to lack of exploitation and integration of data and of global view on population exposures including critical periods of exposure such as foetal and child development. There is a need for a new way to study the environment human health relationships, including threshold values and the role of individual variability.~~

~~The aim will be to exploit available or to be developed novel tools and methods (e.g. remote sensing/GIS-based/spatial analysis, 'omics'-based approaches, biomarkers of exposure, exposure devices and experimental models, new tools for combined exposures, novel study designs, burden of disease methodologies) to integrate and link environmental data with health data and information, and to apply them to (large-scale) population studies including new ones if deemed necessary (a concept that was recently proposed in the literature as 'exposome'). Cooperation with other non EU initiatives in the field is encouraged.~~

~~**Funding scheme:** Collaborative project~~

~~**The requested European Union contribution per project shall not exceed EUR 9 000 000**~~

~~**One or more proposals can be selected.**~~

~~**Expected impact:** Contribution to the definition of an integrated exposure concept and prediction of individual disease risks related to environment. Reduction of uncertainty in risk assessments of chemicals. Better understanding of the effect of multiple exposures, such as to mixtures of chemicals. Improvement of preventive strategies to lower health costs. Increased EU competitiveness, especially that of SME's that may find new business sectors in exposure characterisation and modelling. Address the priority goals of the Parma Declaration on Environment and Health (2010). Contribution to EU policies on Environment and Health.~~

~~**Specific feature:** Projects selected under this topic will be linked through a coordination mechanism that will be defined during the negotiation stage.~~